Water Transfers

Overview

A water transfer is a sale of water from a willing seller to an interested buyer. Transfers may be short-term interim transfers or they may be long-term transfers. The attributes, uses and adverse effects of each are significantly different. In general, there are many short-term (1 year or less) transfers of water throughout the state. These transfers may be from one agricultural user to another in the same district or basin, from one agricultural user to another in different basins or from agricultural user to urban user or environmental user. Generally, due to the duration of the transfer primarily, impacts are minimal from these activities and indeed in many areas people are even unaware the transfers take place. The transfers of surface water are generally much less controversial than proposed transfers of groundwater. If not properly configured, each can have significant adverse consequences.

Transfers can involve the permanent sale of a water right by the water right holder; a lease of the right to use water from the water right holder; or the sale or lease of a contractual right to water supply. Transfers can benefit agriculture by providing additional water supplies to the those farms willing to buy water, allow urban users to expand supplies to meet growing demand without using other means, and provide a means to dedicate additional water to the environment. There are however, potential significant adverse effects, which may result from transfers to the place from which the water is transferred, the areas in which the water pass and to the areas in which the water is ultimately used. For that reason, transfers, as a water resource management tool, should undergo the same evaluation and scrutiny as other management options.

Transfers are viewed by some as being a simple two party agreement between a buyer and a seller. However, that is not actually the case. "*In a recent report the National Research Council observed that water markets cannot be expected to resemble more conventional markets for a variety of reasons, including the long held tradition that water resources support a wide variety of public uses. Thus transfers can impose significant third-party effects, which must be accounted for in any reallocation. If transfers are to achieve their potential, the report said, the decision making process should bring all relevant third parties into the deliberations. This broad participation is necessary because water is a unique resource, different from other commodities. Markets alone cannot accurately reflect all the relevant values of water."* (A Legal View: Community Rights and the Privatization of Water, Professor Joseph L. Sax, University of California, Berkeley, 1991).

The transfers process - especially long-term transfers - should be carried out in a public venue, with a complete and adequate analysis of the potential impacts of the transfer and input and coordination with relevant third parties as well as a comprehensive and cumulative environmental analysis.

Current Use of Water Transfers in California

Water transfers have been an integral part of the California waterscape for over 100 years. State, federal and local water projects in California have and continue to depend on the ability to move water from water-abundant areas to drier locations in the state.

Most of California's major urban areas include significant reliance on water transfers as part of their plans to ensure reliable supplies for their customers. The Santa Clara Valley Water District has entered into a long-term exchange agreement with the Westlands Water District assuring urban residents additional supplies in dry years. While agencies in Southern California continue to pursue long-term transfers from the Imperial Irrigation District, they are also pursuing short-term transfers to move conserved agriculture water from rice farms in Sacramento to urban areas of Southern California. The Sacramento Valley transfers, recently approved by the State Water Resources Control Board, however, are for just one year. The viability and sustainability of long-term transfers from northern California to the southern part of the state are unclear given conveyance constraints within the Delta as well as so far unanswered third party and environmental consequences. The San Francisco Public Utilities Commission, which serves much of the Bay Area, has identified transfers as a key component of meeting future increased water supply delivery objectives.

Transfers have also been used for environmental purposes, which are commonly referred to as acquisitions. The Central Valley Project Improvement Act, passed in 1992, included a surcharge on its contractors for water acquisitions to increase streamflows to assist anadromous fish. The Vernalis Adaptive Management Program is one such acquisition that has significantly increased outflow during the early spring on the lower San Joaquin River. That program is to last a total of 12 years. Water transfers have also allowed the Environmental Water Account to acquire water for the protection of key fish species without disrupting water deliveries to south-of-Delta contractors.

Finally, while developed agricultural supplies are the source of most water transfers, many farms have also benefited from the ability to increase their supplies through the marketplace. Westlands Water District, for example, has not only increased its purchases from other areas in recent years, but has also established an internal electronic bulletin board for transfers within the district.

Potential Benefits of Water Transfers

Water transfers can be beneficial in maximizing existing water supplies and improving the supply and reliability of water. With adequate assurances and monitoring, water transfers can be implemented so that a market between "water short" agricultural and urban areas can purchase water from "water rich" agricultural areas in a cost-effective manner, encouraging overall water use efficiency. In addition, a flexible, market-oriented approach to allocating available supplies can be used towards improving ecosystem restoration.

Potential Costs of or Impediments to Water Transfers

While transfers offer the best opportunity to allow developed water to "flow" toward its most economically efficient use, there are several major issues that should be considered before some proposed transfers are allowed to go forward. In general, water transfers must not be allowed to

circumvent our responsibility to provide for basic health and safety needs for all Californians, meet baseline environmental objectives or, in any way whatsoever, adhere to the State's obligations under the Public Trust Doctrine.

Third-Party Socioeconomic Considerations

If transfers are conducted in a manner without sufficient consideration, they have the potential to harm local communities in the area originating the transfer, in the intervening areas of conveyance and downstream. While the buyer and seller agree on a price, affected parties (i.e., farm laborers, communities in source areas) may not be well represented in the transfer resulting in some of the costs of the transfer being externalized from the transaction and those impacts shifted onto other parties who were not privy to the negotiations. This represents the unique nature of water as a "commodity" - it is not a privately owned resource and how it is used can harm people and interests not represented in traditional water sales negotiations.

Groundwater transfers may overdraft groundwater resources and lower the water table, thereby increasing pumping costs for groundwater users, as well as require users to seek out other sources. Changes in demand could result in decreased on-farm revenues, which in turn, influence on-farm employment and off-farm employment, and revenues. Such third-party impacts have provided a compelling argument to reject or modify several proposed transfers. Unfortunately, socio-economic impacts are not required to be evaluated under the California Environmental Quality Act but they are under the National Environmental Policy Act.

Environmental Considerations

Environmental consequences of transfers can occur in three places: the area *from* which the water is transferred, the area *through* which the water is transferred and the area where the water is transferred to. Issues that need to be addressed are whether the transfer improves or lowers water quality in the area where it is going to be used and whether the water is most beneficially used in the new area. In addition, it is important to consider whether the transfer induces or supports growth in the end use area vs. agriculture in the source area.

Specifically, substituting groundwater for surface water, changing the location, time, and quantity of surface diversions, or changing land use or crop patterns through crop shifting or fallowing may produce significant environmental effects (i.e., alterations in soil and water quality, aquatic habitat, etc.). Moreover, species in the area from which the water is transferred may be dependent on specific environmental conditions, and may be potentially impacted by the transfer of water.

Potential for Transferring "Paper" Water

It is often challenging to measure water quantities precisely or to understand fully what would have happened if a transfer had not taken place. For example, some agriculture to urban transfers have assumed that the agricultural land would be fallowed or more efficient irrigation would be used. It is difficult to be certain that the reductions in agricultural use actually occur, and the possibility exists that the farmers are simply pumping more groundwater, without analyzing the long-term impacts of increased extraction.

Expectation of Payment for Environmental Compliance
Once some water users receive compensation for providing water to the environment, others may expect to be paid for any contributions that they are making to instream flows. Many believe that the Public Trust Doctrine requires water agencies to operate their projects so that they have limited environmental impacts, such as maintaining fisheries below dams. If parties are successful in providing water for environmental purposes only when paid to do so, the long-term availability of environmental water will be uncertain.

Major Recommendations for Water Transfers

Inseparable from each management strategy is the requirement that planners, the public, and decisionmakers understand the economic, environmental, and "equity" implications of proposed projects. The understanding required to guide successful management decisions as California's plumbing systems become increasingly complex, interconnected, and stressed cannot be fully developed from discrete regional and local analyses, useful as these may be. Rather, it is necessary that continuous evaluation by the regulator of water rights and perpetual stewardship of the public trust occur. In doing so, the State, local governments and water agencies must take responsibility for appropriately constraining water transfers that are evaluated using social (i.e., Public Trust doctrine), environmental, and economic cost and benefit criteria as those used for other potential management strategies.

The following recommendations recognize that the application of water transfers will vary throughout California due to differences in local conditions:

1. The Resources Agency, in coordination with CalEPA (including the State Water Resources Control Board), should publish comprehensive assessments of the condition of public trust assets under State protection. State agencies responsible for implementing or permitting water management projects (i.e., transfers, storage projects, conveyance improvements, conjunctive management initiatives, etc) should disclose project-specific and cumulative effects of the proposals.

2. The State Water Resources Control Board should allow water transfers only for quantities of water in excess of those amounts needed for, and dedicated to, baseline environmental, health, safety, and justice purposes. (Baseline includes all water needed to meet environmental regulations, guarantee tribal rights, and satisfy the Public Trust doctrine).

3. The State Water Resources Control Board should implement only those water transfers that are appropriately constrained by using water developed for urban and agricultural consumptive uses efficiently, and in ways that assure no net increase in baseline diversions or consumption (for transfers involving fallowed land). Moreover, transfer recipients should be required to demonstrate that they have implemented at least specified levels of water use efficiency. Transfers should not result in a net increase in baseline diversions or consumption in the areas from which water is transferred.

4. The Department of Water Resources and the State Water Resources Control should encourage regional self-sufficiency (i.e., conservation, recycling, desalination, etc.) as an approach(s) to manage existing water supplies and water demand to the extent possible (e.g. to the guidelines of Senator Machado's SB 672 legislation).

5. The Department of Water Resources and the State Water Resources Control Board should incorporate water use and transfer mitigation surcharges to fund mitigation programs for members of affected local communities and affected environmental assets including the source watershed(s). Moreover, these agencies should encourage greater community participation in water policy and water transfers to protect the interests of existing water rights holders, buyers, the environment, the general public and communities.

6. The State Water Resources Control Board should take all necessary consultation and implementation steps necessary to assure that transferred water, whether for one year or multiple years, is used for the maximum benefit. That is, transfers intended for urban use may also be scheduled to enhance flows for other aquatic species in areas between the seller and buyer. In addition, transfers should be carried out so that the environmental benefits measurements begin in the area from which the water is to be transferred.

7. The California Department of Fish and Game and the State Water Resources Control Board should assure that for those transfers utilizing the San Francisco Bay-Delta for conveyance do no impact or diminish the condition of the San Francisco Bay-Delta ecosystem, either singly or in a cumulative manner.

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